Amendments to the Claims:

The following represents a complete listing of the claims in this application including all amendments submitted in this paper. By this paper, original claims 1-24 have been canceled in favour of new claims 25-51.

Listing of Claims

1-24(Canceled).

25(new). A method of facilitating the crystallization of a macromolecule comprising the step of adding a mesoporous glass as nucleant to a crystallization sample wherein the mesoporous glass comprises pores having diameters between 4nm and 100nm and has a surface area of at least $50m^2/g$.

26(new). A method of facilitating the crystallization of a macromolecule comprising the step of:

(a) adding to a crystallization sample a mesoporous glass nucleant of a composition selected from the group consisting of SiO_2, $CaO-P_2O_5-SiO_2$ and $Na_2O-CaO-P_2O_5-SiO_2$ or combinations thereof;

(b) wherein each of the Ca, P, Si or Na atoms within the compositions may be substituted with a suitable atom chosen from the group consisting of B, Al, Ti, Mg, and K; and

(c) wherein, optionally, the composition may also include

elements having an atomic number over 20 to enhance X-ray diffraction contrast.

27(new). A method as in claim 25 wherein a mesoporous glass is of a composition selected from the group consisting of SiO_2, $CaO-P_2O_5-SiO_2$ and $Na_2O-CaO-P_2O_5-SiO_2$ or combinations thereof.

28(new). A method as in claim 26 wherein a mesoporous glass is of a composition selected from the group consisting of SiO_2, $CaO-P_2O_5-SiO_2$ and $Na_2O-CaO-P_2O_5-SiO_2$ or combinations thereof.

29(new). A method as in claim 26 wherein a mesoporous glass comprises pores having diameters between 2nm and 200nm.

30(new). A method as in claim 27 wherein a mesoporous glass comprises pores having diameters between 2nm and 200nm.

31(new). A method as in claim 30 wherein the diameter of the pores has a standard deviation of at least 10nm.

32(new). A method as in claim 25 wherein a mesoporous glass has interconnected pores that intersect with the surface of the glass.

33(new). A method as in claim 26 wherein a mesoporous glass has interconnected pores that intersect with the surface of the glass.

34(new). A method as in claim 25 wherein crystallization of the macromolecule is induced at a lower critical level of super saturation than that obtained where the mesoporous glass is not added to the sample.

35(new). A method as in claim 27 wherein crystallization of the macromolecule is induced at a lower critical level of super saturation than that obtained where the mesoporous glass is not added to the sample.

36(new). A method as in claim 25 further comprising the step of preparing said mesoporous glass for use as a nucleant in crystallization by fracturing said material into pieces of sub-millimeter dimensions.

37(new). A method as in claim 26 further comprising the step of preparing said mesoporous glass for use as a nucleant in crystallization by fracturing said material into pieces of sub-millimeter dimensions.

38(new). A method as in claim 36 wherein the pieces are no more than 200 micron in any dimension.

39(new). A method as in claim 37 wherein the pieces are no more than 200 micron in any dimension.

40(new). A method as in claim 25 further comprising the steps of:

(i) crystallizing said macromolecule in said sample in the presence of said mesoporous glass; and

(ii) analyzing the crystal structure of the crystal produced in step (i).

41(new). A method as in claim 26 further comprising the steps of:

(i) crystallizing said macromolecule in said sample in the presence of a mesoporous glass; and

(ii) analyzing the crystal structure of the crystal produced in step (i).

42(new). A method as in claim 25 including the step of adding said mesoporous glass to said crystallization sample using an automated dispensing system.

43(new). A method as in claim 26 including the step of adding said mesoporous glass to said crystallization sample using an automated dispensing system.

44(new). A method as in claim 42 wherein the mesoporous glass is added as a suspension in a liquid.

45(new). A method as in claim 43 wherein the mesoporous glass is added as a suspension in a liquid.

46(new). A method as in claim 25 wherein the macromolecule is a biological macromolecule.

47(new). A method as in claim 26 wherein the macromolecule is a biological macromolecule.

48(new). A crystal obtained by the method of claim 26.

49(new). A site suitable for crystallizing a macromolecule selected from the group consisting of a chamber, a fibre, film and a mesh, wherein said chamber, fibre, film or mesh comprises a mesoporous glass as defined in claim 26.

50(new). A site suitable for crystallizing a macromolecule

as in claim 50 wherein the mesoporpous glass forms a coating on the chamber, fibre, film or mesh.

51(new). A kit of parts comprising a crystallization agent and a mesoporous glass as defined in claim 26 and a site as defined in claim 49.